

COMPATIBILITY DETERMINATION

Use: Boating with Motor-Driven Watercraft

Refuge Name: Upper Mississippi River National Wildlife and Fish Refuge (Refuge).

Establishing and Acquisition Authorities: The Upper Mississippi River National Wildlife and Fish Refuge was established by Public Law No. 268, 68th Congress on June 7, 1924. This act authorized acquisition of lands for Refuge purposes. Additional lands acquired in fee title by the U.S. Army Corps of Engineers are managed as part of the Refuge under a 1963 Cooperative Agreement between the Department of the Army and the Department of the Interior.

Refuge Purpose(s): The Refuge shall be established and maintained (a) as a refuge and breeding place for migratory birds included in the terms of the convention between the United States and Great Britain for the protection of migratory birds, concluded August 16, 1916, and (b) to such extent as the Secretary of the Interior by regulations, prescribe, as a refuge and breeding place for other wild birds, game animals, fur-bearing animals, and for the conservation of wild flowers and aquatic plants, and (c) to such extent as the Secretary of the Interior may, by regulations, prescribe a refuge and breeding place for fish and other aquatic animal life.

National Wildlife Refuge System Mission: The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Goals of the National Wildlife Refuge System:

- a. To fulfill our statutory duty to achieve refuge purpose(s) and further the System mission.
- b. Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
- c. Perpetuate migratory bird, interjurisdictional fish, and marine mammal populations.
- d. Conserve a diversity of fish, wildlife, and plants.
- e. Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.
- f. To foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high-quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Description of Use:

What is the use? This use involves the use of combustion engine watercraft such as powerboats, airboats, hovercraft, or personal watercraft (e.g. jet skis) for general recreational boating on the Refuge. Waterskiing is also included in this use due to its close association with powerboats.

Power boating in itself is not a wildlife-dependent use; however, it is often associated with other uses including wildlife observation, photography, fishing, and hunting.

Where is the use conducted? Many recreational boating visits, especially for those who stay mainly on the main navigation channel due to boat size, originate their trips off-Refuge from marinas or other public and private boat launches. However, advances in boat engines (mud motors) have made traveling through the backwaters easier and likely increased backwater use over the last few years.

When is the use conducted? This use occurs most frequently during the summer from May to September. People who take part in this use often engage in other water-related recreation as well, including fishing, camping, hunting, picnicking and swimming. Estimates for recreational boating visits are not tallied for the Refuge but given the estimated annual visitation of 3.1 million people, it is not unreasonable to assume that over 1 million of those visitors operate a boat on the Refuge.

How is the use conducted? Recreational boating is subject to respective state boating laws and regulations, and applicable U.S. Coast Guard and Refuge recreation regulations. There are 45 slow, no-wake zones within the Refuge, most of which are administered by local units of government. Enforcement of recreational boating is a cooperative effort between Federal Wildlife Officers, state conservation officers, and local sheriff and/or city police departments.

There are also specially designated areas of the Refuge which are in place to alleviate congestion and increase safety. These include Slow, No-Wake Areas, Electric Motor Areas, and Closed Areas.

Why is this use being proposed? In 2007 an aerial recreational boating study was conducted by St. Mary's University GeoSpatial Services, Winona, MN from the foot of Lake Pepin to Lock and Dam 10, approximately 150 river miles. The study focused on the peak boating season, Memorial Day to Labor Day, and only on boats within the main navigation channel. In total, 7,003 boats were counted during 10 flights. The survey showed that 57 percent of boating use occurs on Pools 4, 9, and 10 (22%, 19.5%, and 16% respectively) or three of the 12 pools on the Refuge.

U.S. Army Corps of Engineers data show the number of recreational boat lockages through the system of locks on the Mississippi River has begun to decrease, however, commercial lockages continue to increase. As an example, data from Lock and Dams 4, 5, 5A and 6 show a 35 percent decrease in the six year average of 2010 – 2015 as compared to the years 1994-1999. This decrease may be the result of increased fuel prices, recreational boaters reluctance to lock-thru (either due to unfamiliarity with the process or the inconvenience of being delayed behind a tow boat), or the desire to stay in a pool that is familiar.

A 2006 recreational boating survey conducted by the Minnesota Department of Natural Resources, in cooperation with the Wisconsin Department of Natural Resources, Corps of Engineers, and the Refuge, helped characterize the nature and extent of boating use on Pools 4 (foot of Lake Pepin), 5 and 5A of the Mississippi River. The study estimated that 40 percent of

recreational boating takes place in the main navigation channel of the river, with 60 percent in side channels and backwater areas. The Minnesota study also noted several boating trip characteristics:

- Average boater: 25 years on the river; lives 32 miles away, boats 25 times/year.
- Daytrips account for 87% of all trips.
- Most boaters (88%) do not leave (or lock out of) the pool into which they launch.
- Fishing is the primary activity for 70% of all boaters.
- One-third of all trips (35%) involve beaching.

The Refuge maintains 25 boat landings with 425 parking spaces. These landings generally accommodate 18-foot or less watercraft due to ramp size and water depths. An additional 222 non-Refuge boat landings are scattered throughout the length of the Refuge and offer ample access options for recreational boaters.

Availability of Resources: The main costs of these uses are law enforcement and litter clean-up. Resources to adequately manage these uses are marginal at best given the number of Federal Wildlife Officers, the sheer size of the Refuge, and the number of users. Other personnel from the state, county, and local law enforcement community may assist with oversight of many of these uses. Funding for law enforcement staff time and printing of the Refuge Public Use Regulations brochure is limited some years, calling for a redirection of existing Refuge funding. Although not optimum, funding and staffing is available to allow this use at current and anticipated levels. Facilities to support recreational boating are deemed adequate given the number and variety of public accesses and private marinas.

Anticipated Impacts of the Use: Recreational boating has the potential to cause temporary disturbance to bald eagles, water birds, waterfowl, and other wildlife. Disturbance is limited for boating occurring in the main river channel and adjacent areas since wildlife is more prevalent in the backwater areas of the Refuge. However, certain watercraft such as jet skis and airboats can easily access backwater areas with a corresponding increase in disturbance to resting and feeding birds and other wildlife. This disturbance usually displaces wildlife to adjacent areas of the Refuge. In some cases, however, repeated disturbance can have serious impacts, such as forcing the abandonment of nesting colonies of herons and egrets. Some shoreline erosion is caused by the wakes of all boats, and is most serious with very large craft. Loss of vegetation and increase in turbidity occurs from boats running through shallow backwater areas.

There is potential for conflicts between recreational boating and anglers, canoers, and kayakers due to speed, wake, and noise.

Public Review and Comment: This Compatibility Determination is a re-evaluation of an existing determination which was included in the Draft Comprehensive Conservation Plan and Environmental Impact Statement (EIS) released May 1, 2005 for a 120-day comment period. It was also available during a subsequent 90-day review period on a supplement to the EIS released December 3, 2005. Public notification included notices in the Federal Register, media announcements, and 31 public meetings and workshops attended by more than 3,700 persons. Many comments on boating and Electric Motor Areas and Slow, No Wake Areas were received

and can be found in Chapter 7 or the EIS, with a Service response. However, no comments specific to this determination were received.

A draft of this re-evaluation was released on August 5, 2016 for a 30-day comment period. Public notification of the availability of this CD included media announcements and posting on the Refuge's website. The Wisconsin DNR provided comments on the draft CD which encouraged the Refuge to work with local municipalities when implementing measures to regulate the means of navigation. The Refuge recognizes the importance of working with the State(s), County and Local municipalities when implementing regulations which involve navigation and/or the means of navigation. In order to achieve widespread enforcement of regulations pertaining to navigation, multiple entities would need to have similar regulations and/or authority to enforce regulations on the Refuge. The Refuge's CCP (see page 134) discusses the need to work with local authorities to designate and mark slow, no wake zones.

The Wisconsin DNR also requested further information on waterfowl disturbance thresholds and how monitoring of disturbance to waterfowl in closed areas would be used to evaluate the effectiveness of voluntary avoidance and potentially implement further regulation of the means of navigation in closed areas. Disturbance in waterfowl hunting closed areas and disturbance thresholds were thoroughly discussed in the Refuge's CCP (see pages 17-18 and 121-123). The Refuge will continue to monitor human disturbance of waterfowl in closed areas and will evaluate the need for more restrictive measures to minimize disturbance to resting waterfowl if voluntary avoidance proves ineffective. Any proposed changes to how the Refuge manages closed areas will be coordinated with the appropriate State DNR prior to changes being implemented.

Determination:

_____ Use is Not Compatible

XX Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. All appropriate state and federal boating regulations apply.
2. Maintain existing Electric Motor Areas to prohibit combustion engine driven watercraft in sensitive backwater areas (five areas, 1,852 acres).
3. Maintain existing Seasonal Slow, No Wake Areas (March 16 to October 31) to require slower speeds and a prohibition of airboat and hovercraft operation in important backwater areas (eight areas, 9,720 acres).
4. Maintain a series of linear Slow, No Wake Zones for safety and/or to protect shorelines.

5. Maintain a network of Waterfowl Hunting Closed Areas and Waterfowl Voluntary Avoidance Areas which provide resting and feeding areas for waterfowl during fall migration with provision for voluntary avoidance on large closed areas and no motors on small areas to limit disturbance. A threshold of disturbance will remain in place. Should voluntary measures not prove effective, the Refuge will consider, and if necessary, implement more restrictive measures to minimize disturbance to resting waterfowl in closed areas.

Justification: Although recreational boating levels are high on the Refuge, much of the use occurs on the main channel of the river and adjacent deeper waters. These areas are generally not heavily used by wildlife so disturbance is limited. The timing of recreational boating on the main channel and adjacent areas also serves to limit disturbance, with summer months and mid-morning to evening being peak use times. These times generally do not correspond to peak nesting and migration seasons, and morning feeding hours. The size of the Refuge and extensive backwaters with difficult public access and Electric Motor Areas and Slow, No Wake Areas provide sizeable alternative areas for wildlife that has been disturbed. Bank and shoreline erosion, loss of aquatic vegetation, and increase in water turbidity is variable, and perhaps not generally greater than that caused by commercial navigation, recreational fishing, and other river traffic.

Some wildlife, such as bald eagles, have become increasingly tolerant of watercraft, and often nest successfully adjacent to major boating areas. Other wildlife is less tolerant, but Electric Motor Areas, Slow, No Wake Areas, Slow, No Wake Zones, and Waterfowl Hunting Closed Areas help limit disturbance. Fish and other aquatic species generally have ample habitat to move away from boating disturbance. Conflicts between user groups occur, but the establishment of additional Electric Motor Areas and the Slow, No Wake Areas will allow different user groups or subgroups to separate themselves.

Also, closing or severely restricting a large portion of the Refuge to recreational boating would be nearly impossible given the mix of navigable waters, various jurisdictions and authorities, enforcement practicalities, and commercial and social considerations.

With stipulations in place, recreational boating, given the location and season of most use and the physical nature and size of the Refuge, does not materially interfere with nor detract from the conservation purposes of the Refuge.

Refuge Manager: Sally Chandler 11/21/17
Signature Date

Regional Chief Concurrence: Chris [Signature] 12-5-17
Regional Chief Date

Mandatory 10 or 15 year Re-evaluation Date: 2027

